APPENDIX D: PHOTOGRAPHING A GEL

1 EQUIPMENT

1.1 Transilluminator, UV

1.2 MP4 Polaroid camera with stand and filter (Wratten 8 or 9)

1.3 Ultraviolet Viewing Cabinet and Camera

1.4 FMBIO II Fluorescent Image Analysis System

2 MATERIALS

2.1 Black and white Polaroid film, Type 667

3 PROCEDURE

CAUTION: ETHIDIUM BROMIDE IS A MUTAGEN. AVOID DIRECT CONTACT ALWAYS WEAR GLOVES WHEN HANDLING ETHIDIUM BROMIDE AND ETHIDIUM BROMIDE GELS.

ALWAYS WEAR UV PROTECTIVE EYE WEAR WHEN USING THE TRANSILLUMINATOR.

3.1 Photographing a gel with an MP4 Camera

3.1.1 Place gel (out of its tray) on the UV transilluminator.

3.1.2 Position the camera and select camera settings according to gel size. The following are suggested, initial settings:

1 sec, f/11

Make sure the gel is in the field of view. If not, adjust the fine and/or coarse settings accordingly.

3.1.3 Position filter over lens area.

3.1.4 Slide camera to the left and take the picture by pressing the shutter release cable.

3.1.5 Slide camera to the right. Turn off the transilluminator. Turn on the lights. Pull out the white tab, then pull out the film tab with a slow, steady motion to remove the photograph. Allow the picture to develop for 30 seconds and then peel the picture from its backing. Carefully discard the backing while avoiding the caustic chemical developers.

3.1.6 Label the picture with the case number and initials.

3.1.7 Always clean off the roller with a wet paper towel containing isopropanol when a new roll of film is loaded.

3.2 Photographing a gel using an Ultraviolet Viewing Cabinet and Camera

3.2.1 Place gel (in its tray) into the Ultraviolet Viewing Cabinet.

3.2.2 Using the eyepiece on the Ultraviolet Viewing Cabinet, position the gel so that it is in the field of view of the camera.

3.2.3 Remove the eyepiece and attach the camera.

The following are suggested, initial settings:

1 sec, f/11

3.2.4 Position filter over lens area.

3.2.5 Take the picture by pressing the shutter release button on the handle of camera.

3.2.6 Pull out the white tab, then pull out the film tab with a slow, steady motion to remove the photograph. Allow the picture to develop for 30 seconds and then peel the picture from its backing. Carefully discard the backing while avoiding the caustic chemical developers.

3.2.7 Label the picture with the case number and initials, as well as at least one well number so the gel may be properly oriented.

3.2.8 Always clean off the roller with a wet paper towel containing isopropanol when a new roll of film is loaded.

3.3 Scanning a gel using the FMBIO II Fluorescent Image Analysis System - Optional

Follow the procedure outline in Appendix F, Fluorescent Detection of the Electrophoresis Gel-FMBIO II for scanning a product gel.

♦**END**